

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Chang Heui Hong

Serial No: 10/603,451

Filed: June 25, 2003

For: SCREEN DISPLAY CONFIGURATION  
METHOD FOR MOBILE COMMUNICATION  
TERMINALS

Art Unit: 2628

Examiner: Wang, Jin Cheng

Conf. No.: 4369

**DECLARATION UNDER 37 CFR § 1.131**

Mail Stop **AMENDMENT**  
Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

I, Jung Bae Park, declare the following:

1) I am a Patent Group Manager for LG ELECTRONICS INC. (LGE), which is the assignee of the above-identified United States patent application ("US Application"). I am authorized to make the statements disclosed herein on behalf of LGE.

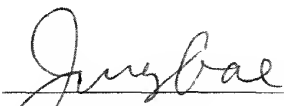
2) On March 13, 2002, an "idea sheet" ("Disclosure") was uploaded into the LGE patent management system. Exhibit A includes a printed copy of the Disclosure. The relevant portions of the Disclosure have been translated into English.

3) Various embodiments suggested in the Disclosure were conceived at least as early as March 13, 2002, and later reduced to practice as evidenced by the Disclosure and the counterpart Korean Patent Application No. 10-2002-0039791, filed on July 9, 2002. A certified copy of the Korean Patent Application was filed with the United States Patent Office on June 25, 2003 to establish the claim of priority for the US Application. (See Exhibit B)

4) From at least as early as March 13, 2002, the ideas disclosed in the Korean Patent Application and US Application were diligently developed. The filing of the same in Korea and US constitutes a constructive reduction to practice of the subject matter disclosed, and claimed, in the US Application.

5) Based on the above, the inventors named in the US Application possessed sufficient information to practice the inventions embodied in the claims of the US Application at least as early as March 13, 2002, and would believe that such inventions to be constructively reduced to practice no later than July 9, 2002, the filing date of the Korean Patent Application.

6) I swear under penalty of perjury that all statements made herein that are of my own knowledge are true, and that all statements made on information and belief are believed to be true as well, and that these statements are made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, or both (18 U.S.C. 1001), and may jeopardize the validity of the application or any patent issuing thereon.



Jung Bae Park

LG ELECTRONICS INC. (LGE)

07.22.2009

Date

sending:

Person in charge	General Manager

# IDEA SHEET

Inventor	General Manager

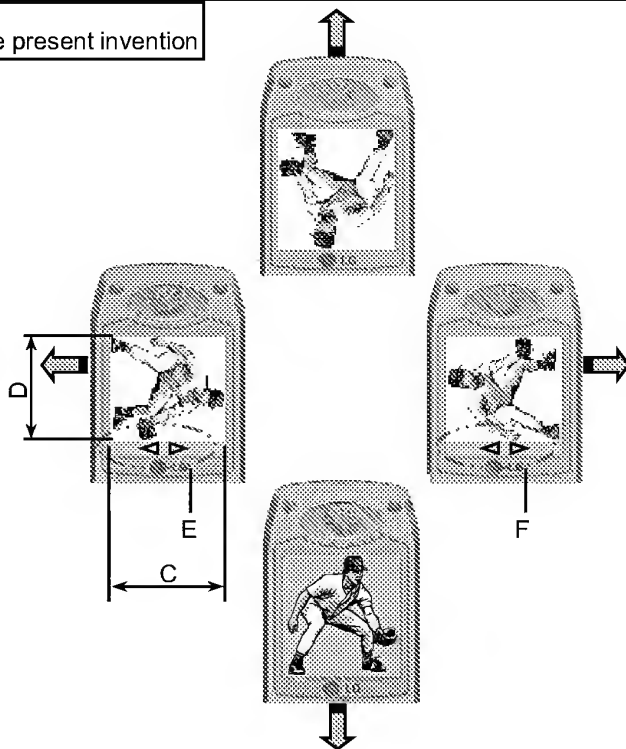
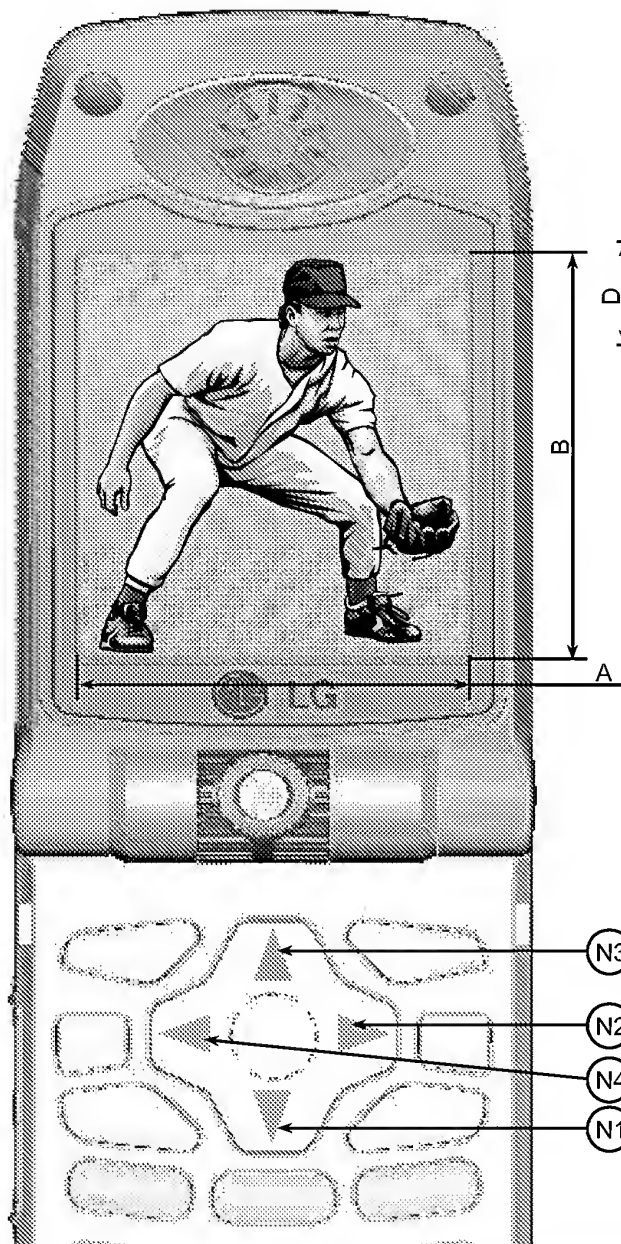
(Reception No.:                      Date:                      )

<b>【Department】</b> 1 <sup>st</sup> development team for next generation terminal research <b>【Name】</b> Chang-Heui HONG <b>【Personal No.】</b> 112391 (Tel) 031-389-7
<b>【PJT Name (Code)】</b> K8000/U8000 <b>【Technology Name (Code)】</b> Screen display configuration method for mobile communication terminals
<b>【Manufactured degree of the present invention】</b> Completed( )    under the design(●)    under the idea application ( ) idea status( )
<b>【Whether foreign filing has been completed or not】</b> Required reviews [1.Export product applicability( ) 2. Export for applicable product is expected.(● ) 3.Strategic necessity( )] Non-existence ( )
<b>【Prior art documents/technology】</b> Existence (documents/patent products Name :                      ) Non-existence ( )

## Description of the related contents of the present invention

1. Technical fields and purposes of the present invention	(Title: Screen display configuration method for mobile communication terminals)
Purposes 1. Installation of a direction key so as to show images captured by a user of a visual display terminal having a camera, or images received from another party to others by rotating the images by several angles, or so as to edit the images 2. Conversion of a screen to an optimum ratio according to directional changes	
2. Problems of the prior art (descriptions of the prior art of the present invention)	
Problems of the prior art 1. In the conventional visual display terminal, images captured by a user or received from another party are viewed as they are. This may cause the user not to be able to show the images after any rotation to others, and editing the images were impossible. 2. Since a screen is converted into a fixed ratio, precise image transmission is impossible.	
※. Please write document names such as priority patent documents or thesis documents utilized for reference	
3. Features and points of the present invention (Means to solve the conventional problems)	
Means to solve the conventional problems 1. Images captured by a user or received from other party are rotated by using a direction key, thereby allowing others to view the images of several direction. 2. Images captured by a user or received from other party are edited by a direction key, thereby expressing the user's personality. 3. The direction of the images is converted to an optimum ratio, thereby enabling precise transmission of the images.	
4. Differences between the present invention and the prior art	
The biggest difference between the present invention and the prior art is that angle control or edition for an image is enabled by using a visual display terminal in the present invention. Furthermore, as the image is converted, ratio change may occur.	

5. Descriptions and explanations of a main drawing of the present invention



Once an image is moved to a direction to be viewed or edited by using a right direction key, the screen is converted to enable precise image transmission to people of a multi-direction as can be seen from the above pictures.

When the image is up-down converted, the screen has a fixed size. However, when the image is converted in right and left directions, the shape of the screen is deformed. In order to prevent this problem, the screen size is reduced by applying a ratio between A and B. A soft direction key (direction indication display) is formed below the screen so as to be turned ON.

When an image (screen) is converted in right and left directions, a ratio between the 'A' and 'B' is as follows.

$$A = C, D = A^2/B$$

Refer to the following flowchart.

※ We wish the inventor to prepare for the work-shop on the detailed description of the present invention after submitting the disclosure.

Review contents for patent Gr (disclosures of patent Gr)

Opinions on reviews

W/S execution ( ) Document supplement F/B ( ) Abandonment ( ) Etc. ( )

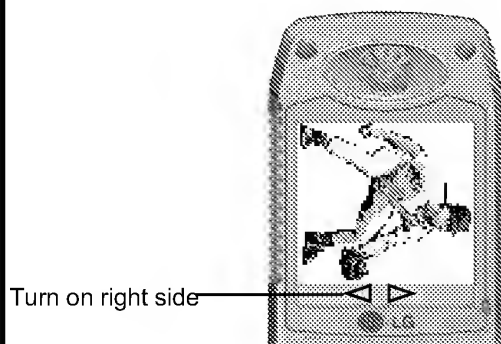
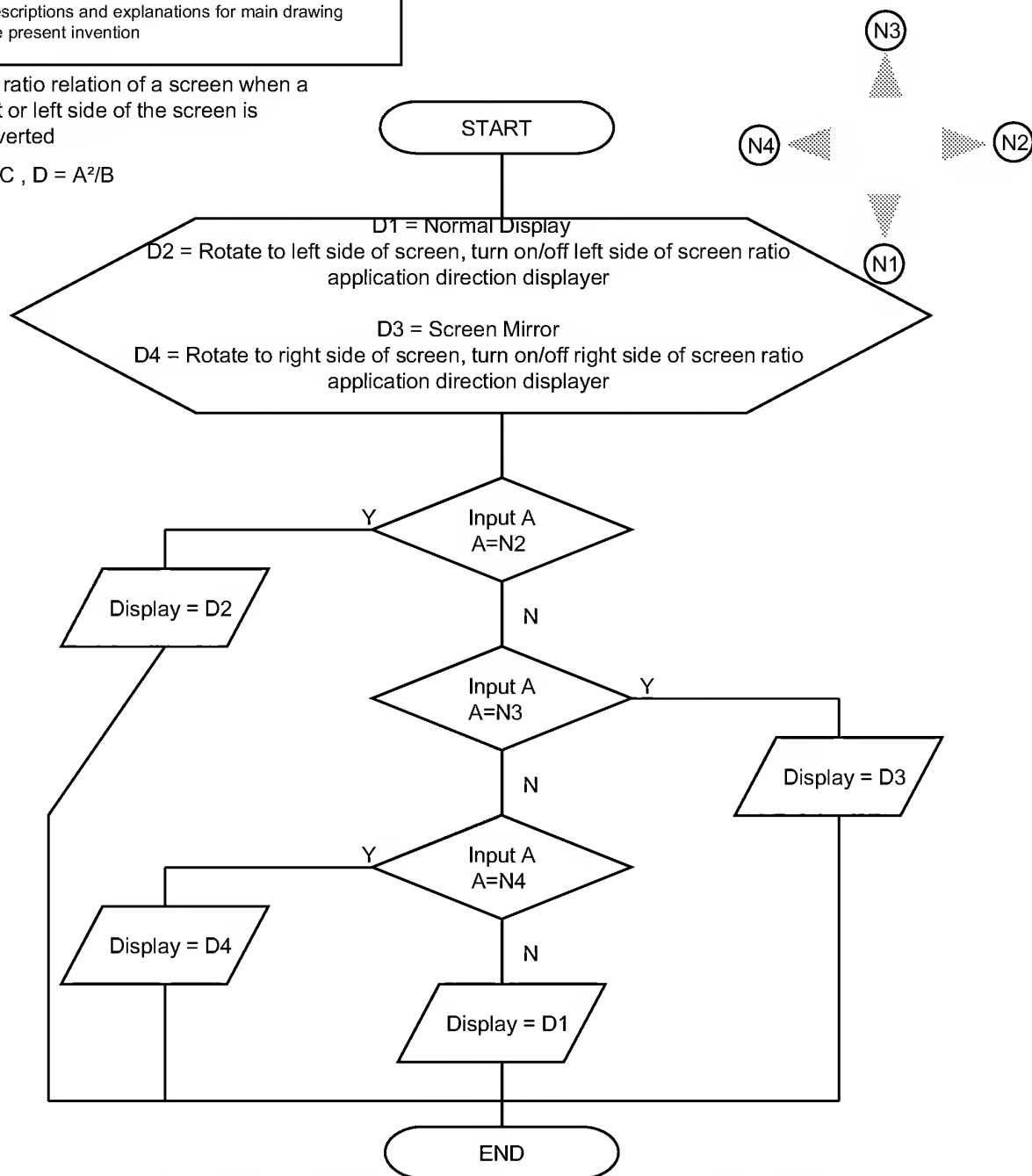
Reviewer: (Signature)

Attorney Office :

5. Descriptions and explanations for main drawing of the present invention

The ratio relation of a screen when a right or left side of the screen is converted

$$A = C, D = A^2/B$$



N4 Move to right side



N2 Move to left side

## Assignment

Address: 20, Yeoui-dong, Yeongdeungpo-gu, Seoul

Assignee

Name: Representative of LG Electronic Co., Ltd. Ja-Hong KOO

**I hereby grand and assign all of my rights to the following invention to Assignee**

March 13, 2002

Assignor (Inventor. 1)	Address	Seogwang APT 705-1702, Salgu-gol, Paldal-gu, Suwon-city, Gyeonggi-do
	Identification No.	550429-1120039
	Name	Chang-Heui HONG (Signature)
	Nationality	Republic of Korea
Assignor (Inventor. 2)	Address	
	Identification No.	
	Name	( Signature )
	Nationality	Republic of Korea
Assignor (Inventor. 1) ※	Address	
	Identification No.	
	Name	( Signature )
	Nationality	Republic of Korea
1. Indication of cases		
2. Title of the present invention	Screen display configuration method for mobile communication terminals	

## 발신 :

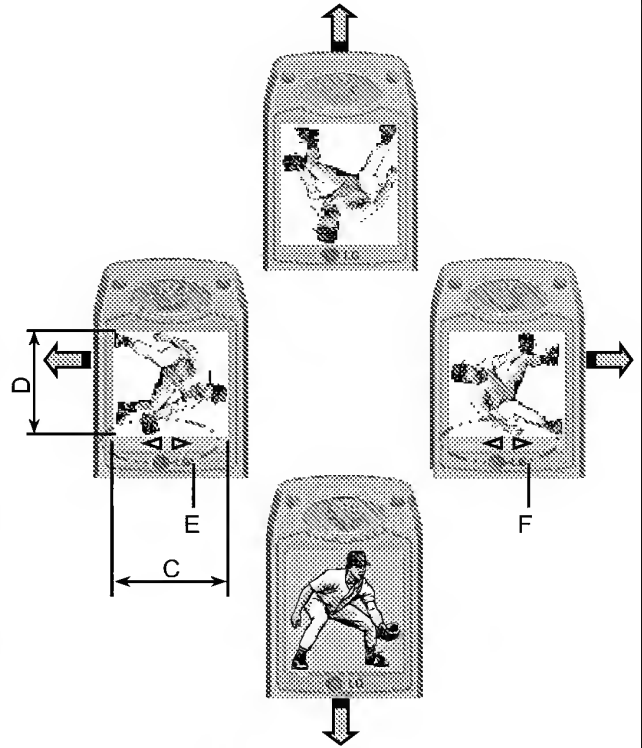
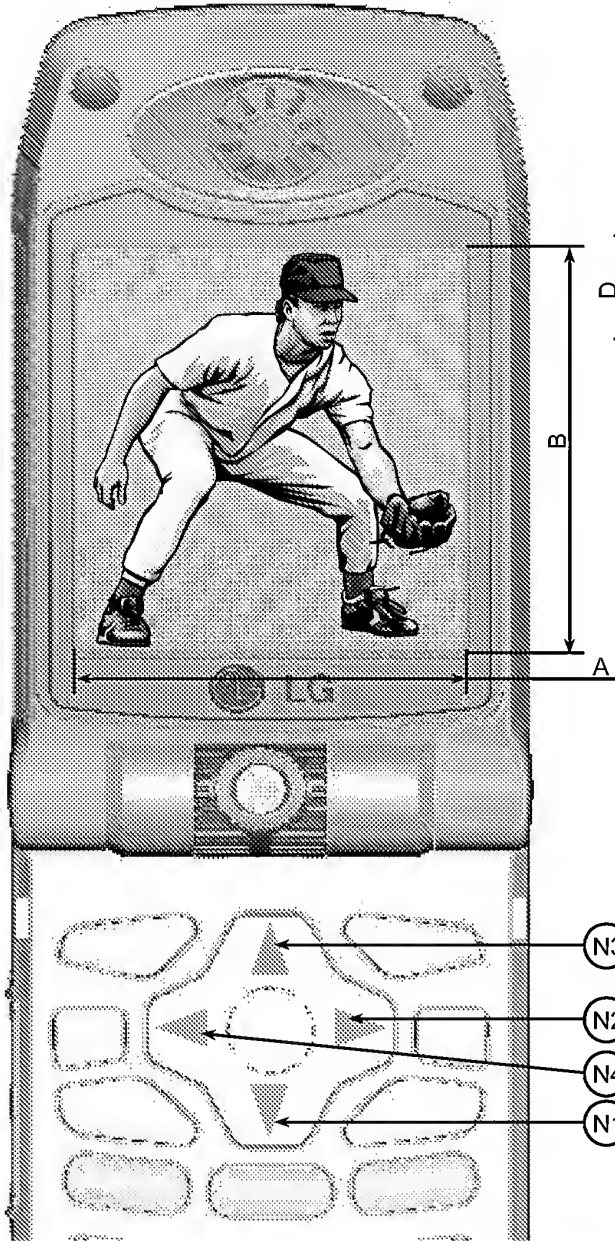
발명자	실장

【소속】 차세대 단말연) 개발1실 【성명】 홍 창 희      【사번】 112391 (Tel) 031-389-7260

【선행자료/기술】有 (자료/특허/제품 名 : \_\_\_\_\_) 無 ( )

※. 용지가 난이 부족할 경우 에는 별지를 이용 하십시오 1 / 3

## 5. 본 발명의 핵심 도면 기재 및 설명



우측의 방향 키를 이용하여 보여 주고자 하는 방향의 사람이나, 편집 하고자 하는 방향으로 이동 하게 되면 상도의 그림과 같이 화면이 전환 되어져 여러 방향의 사람 들에게 정확한 영상 전달이 가능 하게 되어진다.

상.하 전환시는 고정된 화면 Size 이면 되지만 좌.우 화면 전환시는 화면의 형상이 일그러지는 것을 방지 하기 위해 화면 Size를 A와B의 비율을 적용하여 줄이고, 그 하단부에는 이동 방향으로 방향 지시표시에 점등이 될 수 있도록 구성 되어져 있다.

화면 좌.우 전환시 화면의 비율 관계는  $A = C, D = A^2/B$

다음 장의 순서도를 참조..

※ 발명자는 본 제안서 제출 후 상세 발명내용에 대하여 Work-Shop 준비를 해 주십시오

### 특허Gr 검토 내용 (특허Gr 기재사항)

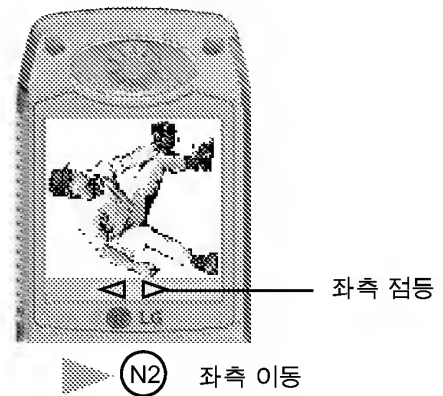
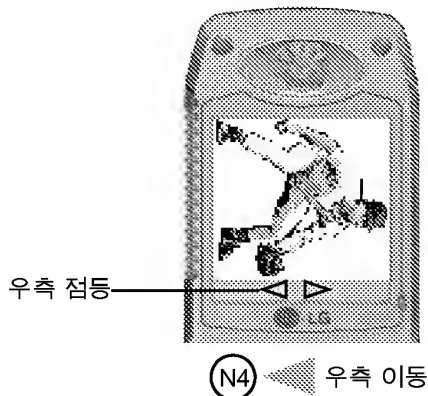
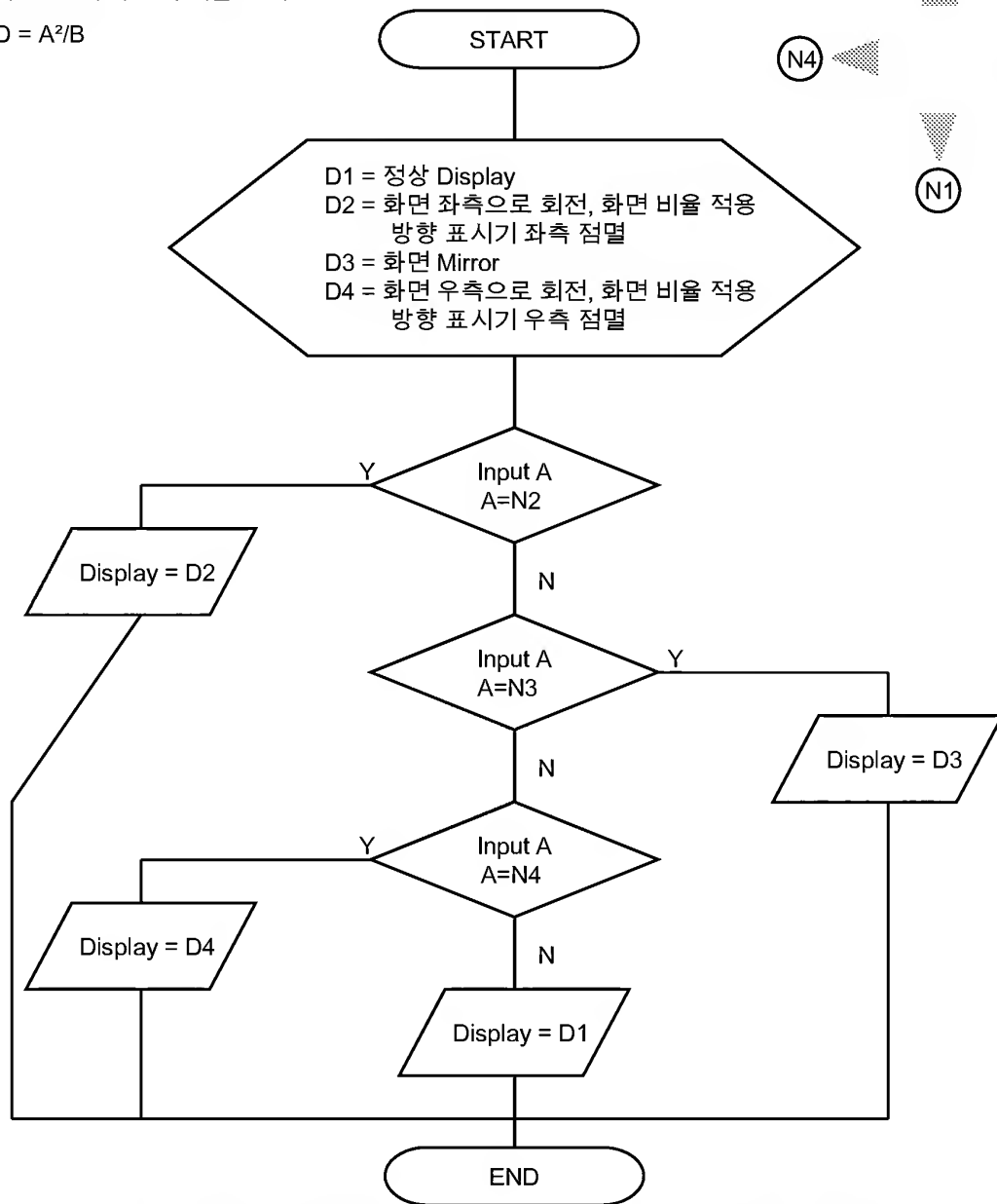
검토의견	W/S실시( ) 자료보충 F/B( ) 포기( ) 기타( )
검토자: (서명)	
대리인 사무소 :	



## 5. 본 발명의 핵심 도면 기재 및 설명

화면 좌.우 전환시 화면의 비율 관계는

$$A = C, D = A^2/B$$



# 양 도 증

주 소 : 서울특별시 영등포구 여의도동 20 번지

양 수 인

성 명 : LG 전자주식회사 대표이사 사장 구 자 홍

다음의 발명(고안)에 관하여 국내,외 특허(실용신안등록)을 받을 수 있는 권리를 귀하에게 양도합니다.(전자결재로 출원의뢰 시 서명은 전자결재로 대체함에 동의합니다.)

2002 년 3 월 13 일

양 도 인 (발명자. 1)	주 소	경기도 수원시 팔달구 영통동 살구골 서광APT 705-1702
	주민등록번호	550429-1120039
	성 명	홍 창 희 (인)
	국 적	대 한 민 국
양 도 인 (발명자. 2)	주 소	
	주민등록번호	
	성 명	( 인)
	국 적	대 한 민 국
※ 양 도 인 (발명자. 1)	주 소	
	주민등록번호	
	성 명	( 인)
	국 적	대 한 민 국
1. 사건의 표시		
2. 발명(고안)의 명칭		영상단말기 화면 편집 장치

## 사건처리

출원서류사항

LG-REF	MHN02-063	특허부서	통신특허팀	사업부	MC 연구소
출원번호	10-2002-0039791	출원일	2002/07/09	건당당자	이용권
발명의 명칭	이동통신 단말기의 화면 표시 방법			특허관리등급	표준/전략특허
포기여부		포기일		포기처리자	
포기Memo					
연구분		모출원번호		모출원일	
해외관련건	2건	사무소REF		사무소담당자	
진행상태					

특허청 이력정보 특허청 등록정보 IDS제출 History 파일리 구조도

진행서류 상세

진행서류	출원의뢰서접수	제부서류	없음	제출기한	
서류일자	2002/03/13	관련번호			
심사결과					
파일명	영상단말기 화면표시장치 ppt				
참고사항					
입력주제	특허팀	입력자	송영환	입력시간	2002/03/13
진행서류 설명					
입력도움말					

진행/이력 상세 확인 X Close

사건처리 목록

총 건수 : 41건

처리종류	진행서류명 (제목)	제부서류명 (상태)	관련번호 (내용)	서류일	입력구분 (요청주제)	사무소담당자 (요청기)	제출기한 (당첨기한)	입력일 (요청일)
	출원	없음	P02-0039791	2002/07/09	특허팀			2002/07/29
	출원문의서	0000		2002/03/13	특허팀			2002/03/13
	사무소이관	없음		2002/03/13	시스템			2002/03/13
	출원의뢰서접수	없음		2002/03/13	특허팀			2002/03/13